P G3 Practice (pg 1 of 2) Acid Base Titration Curves

Name_____Per____

1. Consider the changes (pH, $[H^+]$, $[OH^-]$) when titrating 50.0 ml of 0.20 M perchloric acid with 0.20 M potassium hydroxide. Then sketch a titration curve from the volume and pH values calculated.

   a. Determine the initial pH of the solution before titrating.

   b. What volume of titrant that must be added to reach the equivalence point?

   c. Calculate the pH of the resulting solution when ....

2. Consider the changes (pH, $[H^+]$, $[OH^-]$) when titrating 40.0 ml of 0.85 M sodium hydroxide with 0.60 M hydroiodic acid. Then sketch a titration curve from the volume and pH values calculated.

   a. Determine the initial pH of the solution before titrating.

   b. What volume of titrant that must be added to reach the equivalence point?

   c. Calculate the pH of the resulting solution when ....

3. Consider the changes (pH, $[H^+]$, $[OH^-]$) when titrating 100.0 ml of 0.020 M propionic acid with 0.050 M lithium hydroxide. Then sketch a titration curve from the volume and pH values calculated.

   a. Determine the initial pH of the solution before titrating.

   b. What volume of titrant that must be added to reach the equivalence point?

   c. Calculate the pH of the resulting solution when ....

4. Consider the changes (pH, $[H^+]$, $[OH^-]$) when titrating 15.0 ml of 0.50 M hydroxyl amine with 0.25 M hydrochloric acid. Then sketch a titration curve from the volume and pH values calculated.

   a. Determine the initial pH of the solution before titrating.

   b. What volume of titrant that must be added to reach the equivalence point?

   c. Calculate the pH of the resulting solution when ....

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